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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,221	03/22/2004	Taizou Oonishi	204552032300	9120

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EXAMINER

REIS, TRAVIS M

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/805,221

Applicant(s)

OONISHI, TAIZOU

Examiner

Travis M. Reis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040322</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 5 is objected to because of the following informalities:

Claim 5 recites the limitation "the pre-fixation guide" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 10, 54, & T.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 6, & 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Yura et

al. (U.S. Patent 6795678).

Yura et al. discloses a belt-type fixing device comprising an endless-sheet-like fixing belt to be heated wound around a heating roller and around a nip forming member that is fixed in a downstream position away from the larger diameter heating roller so as to be incapable of rotating, and a pressurizing roller with elasticity which can be driven to rotate, which is in pressure contact with the nip forming member with the fixing belt interposed between, and of which part in contact with the fixing belt forms a fixing nip, wherein a surface of the nip forming member that is opposite to the pressurizing roller is configured as a curved surface extending along an outer circumferential surface of the pressurizing roller so that a pressure distribution in the fixing nip is made generally flat with respect to a paper feeding direction, the fixing belt is rotated while being slid on the nip forming member by rotational drive of the pressurizing roller, and contact area between the fixing belt and the nip forming member outside the fixing nip is smaller on an entrance side of the fixing nip than on an exit side of the fixing nip.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the

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time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yura et al.

With reference to claim 4, Yura et al. discloses all of the instant claimed invention as stated above in the rejection of claims 1, 2, 6, & 7, including a pre-fixation guide (Figure 5) for guiding introduction of the recording medium (S) into the fixing nip.

Yura et al. do not disclose an angle which the pre-fixation guide formed with the fixing belt on the entrance side of the fixing nip is in a range from 30° to 70°. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a pre-fixation guide having an angle in the range of 30° to 70°, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the "optimum range" involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the pre-fixation guide disclosed by Yura et al. have an angle of 30° to 70° in order to allow papers of different thickness into the nip.

With reference to claim 5, Yura et al. discloses all of the instant claimed invention as stated above in the rejection of claims 1, 2, 6, & 7, but do not disclose a distance between the pre-fixation guide and a parallel line extending from the contact point of the nip forming member and the fixing belt is 3 mm. However, to choose a 3 mm distance between the two lines, absent any criticality, is only considered to be the "optimum" value of the distance between the two lines, as stated above, that a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on the desired accuracy and since it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980 ). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the pre-fixation guide disclosed by Yura et al. be 3 mm distant from the parallel line in order to keep the paper from jamming.

8. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Yura et al. in view of Yasui et al. (U.S. Patent 6807386).

Yura et al. discloses all of the instant claimed invention as stated above in the rejection of claims 1, 2, 6, & 7, but do not disclose the heating roller is lower than the nip forming member, in which a recording medium is vertically passed through the fixing nip.

Yasui et al. discloses a fixing device (2) and image forming apparatus with a heating roller (18) wound with a fixing belt (12) which is in a position lower than the nip forming member (24) wherein a recording medium (P) is passed vertically through the fixing nip (Figure 2). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to position the heating roller disclosed by Yura et al. in the manner of the lower position taught by Yasui in order to more efficiently heat the nip forming member.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Swift et al. discloses fusing toner on fuser members made of noble metals and alloys thereof (U.S. Patent 4146659). Matsumoto et al. discloses a roller fixing device (U.S. Patent 4375327). Ohtsuka et al. discloses an image heating apparatus and heating film (U.S. Patent 5471288). Kagawa et al. discloses a toner image fixing member (U.S. Patent 6009300). Hirai et al. discloses a belt-type fixing apparatus (U.S. Patent App. Pub. 2002/0018676). Baba discloses a fixing device (U.S. Patent 6535701). Kadokura et al.

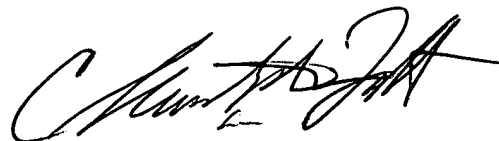
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discloses an image forming process (U.S. Patent 6733944). Aruga discloses a fixing rubber roller (U.S. Patent App. Pub. 2004/0265020). Tatematsu et al. discloses an image heating device (U.S. Patent App. Pub. 2004/0101334). Nakatogawa et al. discloses a sliding member (U.S. Patent 6895208). Matsumoto discloses a fixing device (U.S. Patent App. Pub. 2004/0190958). Sawamura et al. discloses a copying controller (JP 404273278). Maruta et al. discloses a heating device (JP 406118817).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M. Reis whose telephone number is (571) 272-2249. The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Travis M Reis  
Examiner  
Art Unit 2859



Diego Gutierrez  
Supervisory Patent Examiner  
Technology Center 2800

tmr  
June 9, 2005

**CHRISTOPHER W. FULTON**  
**PRIMARY EXAMINER**